

**Number Resource Optimization Working Group
Report on Telephone Number Reservations**

Report to the North American Numbering Council

**As Modified by the North American Numbering
Council**
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1. Introduction

A fundamental premise of the Number Resource Optimization Working Group's (NRO-WG) efforts in developing guidelines for telephone number reservations is that limiting the quantity and time frames for telephone number reservations will increase the total amount of numbers available for assignment within an NPA/NXX and thus reduce the frequency at which new codes are requested. The Industry Numbering Committee (INC) of the Alliance for Telecommunications Industry Solutions (ATIS) has identified six major categories¹ that may be used in tracking and reporting numbers within an NPA/NXX. They have defined four of these major categories themselves and have adopted the recommendations of the North American Numbering Council's (NANC) North American Numbering Plan Administration Working Group (NANPA-WG) for defining and placing limits on numbers within the Aging category. NANC has assumed responsibility for defining and placing limits on numbers within the Reserved category and assigned this task to the NRO-WG. The limits recommended in this report are maximum limits. Individual service providers may elect to set lower limits or other internal administrative policies at their discretion provided they are in conformance with these recommendations. This report attempts to address this responsibility in a manner that balances the legitimate needs of end users to reserve numbers with the industry's need to use numbering resources efficiently.

2. Assumptions

The NRO-WG has reached consensus on the following set of assumptions regarding the application and administration of reserved numbers.

- The reserved number limits begin for all end users regardless of any previous reservations, on the effective date of this process.
- Limits on reserved number quantities and intervals will not differentiate by type of end user.
- Limits are applied on a per end user, per location basis.
- In situations where a specific end user location is served by using numbers within multiple NPA(s)/ NXX(s), the limitation is applied in aggregate and not on a per NPA/ NXX basis.
- Reserved number guidelines must apply equally to service providers making use of telephone numbers for their end users from another service provider's inventory (e.g., resellers, Type 1 interconnection for CMRS carriers).

¹ Assigned, Ported Out, Reserved, Aging, Administrative and Available.

- The original interval limitation established for given end users shall continue² uninterrupted if or when the end user changes service providers.
- Numbers reserved by a service provider on behalf of an end user may be ported where number portability is available and where any portion of the associated working numbers have been or are being ported from that service provider. An end user determines which, if any, of the reserved numbers will be ported. If all working numbers are ported, any remaining reserved numbers, which the end user chooses not to port, will be returned to the available category.

3. Characteristics of Reserved Numbers

Using the parameters provided by NANC, the NRO-WG has identified the following characteristics that help define a reserved number:

- (1) A reserved number is a non-working number
- (2) A reserved number has been set aside by a service provider at the request of a specific end user for that end user's future use, and the service provider has documented the reservation and confirmed it to the end user. Service providers shall provide written notice of reservations of thirty (30) or more numbers to end users.
- (3) The reserved status of a telephone number is reflected in the records of the service provider in whose inventory the numbers are being reserved.³
- (4) The name of the party requesting the reservation is in the service provider's administration system.
- (5) A reserved number has some restrictions such as duration and quantity.
- (6) A reserved number is portable where portability is applicable and the reserved number is associated with working numbers.
- (7) The reserved telephone numbers to which these guidelines apply are those numbers in the 10-digit NANP number format (NPA-NXX-XXXX) within existing geographic central office (NXX) codes.

4. Minimal Criteria for Reserved Number Guidelines

The NRO-WG recommends that national guidelines developed for the administration of reserved numbers include, at minimum, the following criteria to ensure parity both among different classes of end users as well as competing service providers.

² This may require changes to the Local Service Request (LSR) and other provisioning processes.

³ This characteristic is not intended to address disputes/discrepancies between end user and service provider records.

- (1) Reserved number guidelines must ensure number reservations are not used for the purposes of hoarding or warehousing.
- (2) Reserved number limits must apply to all classes of end users.
- (3) Reserved number guidelines must apply equally to all service providers making telephone number reservations on behalf of their end-users.
- (4) Reserved number guidelines must apply equally to service providers making use of telephone numbers from another service provider's inventory (e.g., resellers, Type 1 CMRS carriers).

5. Reserved Number Time Limitations

5.1 Alternatives Considered

The NRO-WG focused on two time periods for establishing a limit on the length of time numbers can be held in reserve for a particular end user. The first period, referred to as the Initial Period, is defined as that which begins on the original date that an end user requests that a number(s) be reserved on their behalf. The second period, referred to as the Extension Period, is defined as that which follows the Initial Period. An end user must specifically request that this extension be applied to their original reservation. Four alternatives were identified for defining both the intervals covered by the Extension Period and any action to be taken thereafter:

1. An extension that is a relatively limited time period, followed by a period of time during which an additional extension is prohibited. The end user can reestablish the reservation after the designated time period if the numbers are still available.
2. An extension of reservations for an indefinite period of time if the service provider pays a fee for keeping the numbers in reserved status. Should the reservation be terminated for any reason, a specified time interval must elapse before the reservation can be reestablished by the same end user. At that point, the reservation becomes a new reservation and the one-year initial period begins again. This new reservation is not subject to a fee during that initial period.
3. An extension of reservations for an indefinite period of time if the end user pays a fee for keeping the numbers reserved for its future use. Should the reservation be terminated for any reason, a specified time interval must elapse before the reservation can be reestablished by the same end user. At that point, the reservation becomes a new reservation and the one-year initial period begins again. This new reservation is not a subject to a fee during that initial

period. Any fees assessed on end-users for whom numbers are reserved should not be considered a new source of revenue for the service provider. Fee use is subject to regulatory oversight.

4. An extension of a longer time frame, with no subsequent extensions permitted. If the end user subsequently places additional lines in service, the end user would be permitted to establish an associated reservation subject to the prevailing guidelines.

The NRO-WG developed a list of pros and cons associated with each of the four alternatives⁴, and used them in achieving consensus on a recommendation.

5.2 Recommendation on Time Limitation

The NRO-WG recommends that the initial period be limited to no longer than twelve (12) months. The NRO-WG further recommends that the length of the extension be limited to no longer than six (6) months with no subsequent extensions permitted. If the end user establishes additional service following the expiration of the extension period, the end user would be permitted to establish a new reservation subject to the prevailing guidelines.

6. Reserved Number Quantity Limitations

6.1 Alternatives Considered

The NRO-WG also reviewed a number of alternatives for limiting the quantity of telephone numbers that can be held in reserve at any given time for a particular end user. Such alternatives included the establishment of a standard upper limit to be applied to all end users versus the setting of different limits to different classes of end users (e.g., residential, small business, large business, etc.). Discussion also focused on whether such limits should be applied on a per end user basis, without regard to situations involving multiple locations, or on a site-specific basis.

For existing end users, the NRO-WG agreed that mapping the quantity of reserved numbers to the quantity of working numbers was an appropriate method of accommodating the needs of different classes of end users. It also agreed that there should still be an upper limit, regardless of how large an end user might be. However, it also acknowledged real situations whereby a large business may initially establish a small presence in a particular area, but plan to significantly expand within a short period of time as their operations grew.

⁴ See March 1999 NRO meeting minutes.

6.2 Recommendation on Quantity Limitations

An existing end user may reserve a quantity of numbers equal to its existing quantity of assigned numbers, to a maximum of 2000, whichever is the lesser. In situations where a specific end user location is served by using numbers within multiple NPA(s)/ NXX(s), the limitation is applied in aggregate and not on a per NPA/ XX basis. New end users may not reserve more than their reasonably forecasted need, but in no case more than 2000 numbers.

7. Conclusions

The NRO-WG has attempted to balance the legitimate needs of end users to reserve telephone numbers with the industry's need to use numbering resources efficiently. In undertaking this task, the NRO-WG recognized that any limitation imposed would create hardships for certain end users under certain conditions. It also recognized, however, that any attempt to custom fit the guidelines to accommodate every possible scenario would create a huge administrative burden and minimize any number optimization potential. As such, the recommendations offered herein are intended to provide a reasonable balance between optimal number utilization, ease of administration, and attention to legitimate end user needs.

It must be acknowledged that the implementation of these recommendations will require changes to service provider's processes and systems. For example, as noted previously, changes to the LSR and other provisioning processes may be warranted and should be addressed by the LNPA WG, Industry Numbering Committee (INC) and the Ordering and Billing Forum (OBF).

As recommended by the NANC, on the effective date of the implementation of these recommendations, service providers should:

1. Notify customers who currently have existing number reservations (in writing to those customers with 30 or more reserved numbers) that the service provider is holding reserved numbers on their behalf.
2. Provide an explanation to the end user of the new restrictions being applied on the reservations of numbers.
3. Give customers the choice of keeping those numbers in a reserved status for up to the limits outlined above or returning the numbers.